



Complete Summary

GUIDELINE TITLE

Recommended adult immunization schedule - United States, 2009.

BIBLIOGRAPHIC SOURCE(S)

Advisory Committee on Immunization Practices. Recommended adult immunization schedule: United States, 2009*. Ann Intern Med 2009 Jan 6;150(1):40-4. [PubMed](#)

Centers for Disease Control and Prevention (CDC). Recommended adult immunization schedule -- United States, 2009. MMWR Recomm Rep 2009 Jan 9;57(53):Q-1-4.

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Advisory Committee on Immunization Practices. Recommended adult immunization schedule: United States, October 2007-September 2008. Ann Intern Med 2007 Nov 20;147(10):725-9. [1 reference]

COMPLETE SUMMARY CONTENT

SCOPE
METHODOLOGY - including Rating Scheme and Cost Analysis
RECOMMENDATIONS
EVIDENCE SUPPORTING THE RECOMMENDATIONS
BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS
CONTRAINDICATIONS
QUALIFYING STATEMENTS
IMPLEMENTATION OF THE GUIDELINE
INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT
CATEGORIES
IDENTIFYING INFORMATION AND AVAILABILITY
DISCLAIMER

SCOPE

DISEASE/CONDITION(S)

Vaccine-preventable diseases:

- Diphtheria

- Hepatitis A
- Hepatitis B
- Herpes zoster
- Human papillomavirus (HPV) infection
- Influenza
- Measles
- Meningococcal disease
- Mumps
- Pertussis
- Pneumonia
- Rubella
- Tetanus
- Varicella

GUIDELINE CATEGORY

Prevention

CLINICAL SPECIALTY

Family Practice
Geriatrics
Infectious Diseases
Internal Medicine
Nursing
Preventive Medicine

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Health Care Providers
Nurses
Physician Assistants
Physicians
Public Health Departments

GUIDELINE OBJECTIVE(S)

To update the Adult Immunization Schedule to reflect current recommendations for the licensed vaccines

TARGET POPULATION

Adults 18 years or older

INTERVENTIONS AND PRACTICES CONSIDERED

1. Vaccination with the following:
 - Tetanus, diphtheria, and acellular pertussis vaccine (Td/Tdap)
 - Human papillomavirus (HPV) vaccine

- Varicella vaccine
 - Herpes zoster vaccine
 - Measles, mumps, and rubella (MMR) vaccine
 - Influenza vaccine (trivalent inactivated influenza vaccine [TIV] and live-attenuated influenza vaccine
 - Pneumococcal polysaccharide vaccine (PPSV)
 - Hepatitis A vaccine (HAV)
 - Hepatitis B vaccine (HBV)
 - Meningococcal conjugate vaccine (meningococcal conjugate vaccine [MCV], meningococcal polysaccharide vaccine [MPSV])
2. Special consideration of immunization needs for adults based on medical and other conditions

MAJOR OUTCOMES CONSIDERED

Not stated

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

In October 2008, the Centers for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices (ACIP) approved the Adult Immunization Schedule for 2009. This schedule has also been approved by the American Academy of Family Physicians (AAFP), American College of Obstetricians and Gynecologists (ACOG), and American College of Physicians (ACP).

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Note: *The Advisory Committee on Immunization Practices (ACIP) annually reviews the recommended Adult Immunization Schedule to ensure that the schedule reflects current recommendations for the licensed vaccines. No new vaccines were added to the schedule. However, several indications were added to the pneumococcal polysaccharide vaccine footnote; clarifications were made to the footnotes for human papillomavirus, varicella, and meningococcal vaccines; and schedule information was added to the hepatitis A and hepatitis B vaccine footnotes.*

Changes in the Schedule for 2009

To make the figure easier to understand, several formatting changes were implemented to both the age group-based schedule and the medical and other indications schedule. The changes include 1) increasing the number of age groups; 2) deleting the hatched yellow bar for tetanus, diphtheria, pertussis (Td/Tdap) vaccine and adding explanatory text to the Td/Tdap bar; 3) simplifying the figures by removing schedule text from the vaccine bars; 4) revising the order of the vaccines to more appropriately group the vaccines; and 5) adding a legend box to clarify the meaning of blank spaces in the table.

The 2009 schedule differs from the previous schedule as follows:

- The human papillomavirus (HPV) footnote (footnote 2) has been revised to include language indicating that health care personnel are not at increased risk due to occupational exposure, but they should be vaccinated consistent with age-based recommendations. Also, text has been added to indicate that vaccination with HPV may begin at age 9 years.
- The varicella footnote (footnote 3) has been revised to clarify that adults who previously received only 1-dose of vaccine should receive a second dose.
- Asthma and cigarette smoking have been added as indications for pneumococcal polysaccharide vaccination (footnote 7). Also, text has also been added to clarify vaccine use in Alaska Natives and American Indians.
- The hepatitis A footnote (footnote 9) has been revised to include additional schedule information for the 4-dose combined hepatitis A/hepatitis B vaccine.
- The hepatitis B footnote (footnote 10) has been revised to include additional schedule information for the 4-dose combined hepatitis A/hepatitis B vaccine and a clarification of schedule information for special formulation indications has been added.
- The meningococcal vaccine footnote (footnote 11) has been revised to clarify that the revaccination interval is 5 years.

Recommended Adult Immunization Schedule --- United States, 2009

Note: These recommendations *must* be read with the footnotes that follow containing number of doses, intervals between doses, and other important information.

Figure 1: Recommended Adult Immunization Schedule by Vaccine and Age Group --- United States, 2009

Vaccine	19-26 years	27-49 years	50-59 years	60-64 years	≥ 65 years
Tetanus, diphtheria, pertussis (Td/Tdap)^{1, *}	Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yr				Td booster every 10 yrs
Human papillomavirus (HPV)^{2, *}	3 doses (females)				
Varicella^{3, *}	2 doses				
Zoster⁴				1 dose	
Measles, mumps, rubella (MMR)^{5, *}	1 or 2 doses		1 dose		
Influenza^{6, *}			1 dose annually		
Pneumococcal (polysaccharide)^{7, 8}	1 or 2 doses				1 dose

Hepatitis A^{9, *}	2 doses
Hepatitis B^{10, *}	3 doses
Meningococcal^{11, *}	1 or more doses

*Covered by the Vaccine Injury Compensation Program.

For all persons in this category who meet the age requirements and who lack evidence of immunity (e.g., lack documentation of vaccination or have no evidence of prior infection)

Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indications)

No recommendation


Report all clinically significant postvaccination reactions to the Vaccine Adverse Event Reporting System (VAERS). Reporting forms and instructions on filing a VAERS report are available at www.vaers.hhs.gov or by telephone, 800-822-7967. Information on how to file a Vaccine Injury Compensation Program claim is available at www.hrsa.gov/vaccinecompensation or by telephone, 800-338-2382. To file a claim for vaccine injury, contact the U.S. Court of Federal Claims, 717 Madison Place, NW, Washington, DC 20005; telephone, 202-357-6400. Additional information about the vaccines in this schedule, extent of available data, and contraindications for vaccination is also available at www.cdc.gov/vaccines or from the CDC-INFO Contact Center at 800-CDC-INFO (800-232-4636) in English and Spanish, 24 hours a day, 7 days a week.


Figure 2: Vaccines That Might Be Indicated for Adults Based on Medical and Other Indications -- United States, 2009

			HIV infection ^{3, 12, 13} CD4 + T lymphocyte count		Diabetes, heart disease, chronic lung disease, chronic alcoholism	Asplenia ¹² (including elective splenectomy and terminal complement component deficiencies)	
	Pregnancy	Immuno-compromising conditions (excluding human immunodeficiency virus [HIV]) ¹³	<200 cells/μL	≥200 cells/μL			
Tetanus, diphtheria, pertussis	Td	Substitute 1-time dose of Tdap for Td booster; then boost					

(Td/Tdap)^{1, *}			
Human papillomavirus (HPV)^{2, *}			3 doses for females through age 26 years
Varicella^{3, *}	Contraindicated		2 doses
Zoster⁴	Contraindicated		1 dose
Measles, mumps, rubella (MMR)^{5, *}	Contraindicated		1 or 2 doses
Influenza^{6, *}			1 dose TIV annually
Pneumococcal (polysaccharide)^{7, 8}			1 or 2 doses
Hepatitis A^{9, *}		2 doses	
Hepatitis B^{10, *}			3 doses
Meningococcal^{11, *}		1 or more doses	

*Covered by the Vaccine Injury Compensation Program.

 For all persons in this category who meet the age requirements and who lack evidence of immunity (e.g., lack documentation of vaccination or have no evidence of prior infection)

 Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indications)

No recommendation

These schedules indicate the recommended age groups and medical indications for which administration of currently licensed vaccines is commonly indicated for adults age 19 years and older, as of January 1, 2009. Licensed combination vaccines may be used whenever any components of the combination are indicated and when the vaccine's other components are not contraindicated. For detailed recommendations on all vaccines, including those used primarily for travelers or that are issued during the year, consult the manufacturers' package inserts and the complete statements

Footnotes

1. Tetanus, diphtheria, and acellular pertussis (Td/Tdap) vaccination

- Tdap should replace a single dose of Td for adults age 19 through 64 years who have not received a dose of Tdap previously.
- Adults with uncertain or incomplete history of primary vaccination series with tetanus and diphtheria toxoid– containing vaccines should begin or complete a primary vaccination series. A primary series for adults is 3 doses of tetanus and diphtheria toxoid– containing vaccines; administer the first 2 doses at least 4 weeks apart and the third dose 6-12 months after the second. However, Tdap can substitute for any one of the doses of Td in the 3-dose primary series. The booster dose of tetanus and diphtheria toxoid–containing vaccine should be administered to adults who have completed a primary series and if the last vaccination was received 10 or more years previously. Tdap or Td vaccine may be used, as indicated.
- If a woman is pregnant and received the last Td vaccination 10 or more years previously, administer Td during the second or third trimester. If the woman received the last Td vaccination less than 10 years previously, administer Tdap during the immediate postpartum period. A dose of Tdap is recommended for postpartum women, close contacts of infants age less than 12 months, and all health care personnel with direct patient contact if they have not previously received Tdap. An interval as short as 2 years from the last Td is suggested; shorter intervals can be used. Td may be deferred during pregnancy and Tdap substituted in the immediate postpartum period, or Tdap may be administered instead of Td to a pregnant woman after an informed discussion with the woman.
- Consult the ACIP statement for recommendations for administering Td as prophylaxis in wound management.

2. Human papillomavirus (HPV) vaccination

- HPV vaccination is recommended for all females age 11 through 26 years (and may begin at age 9 years) who have not completed the vaccine series. History of genital warts, abnormal Papanicolaou test result, or positive HPV DNA test result is not evidence of prior infection with all vaccine HPV types; HPV vaccination is recommended for persons with such histories.
- Ideally, vaccine should be administered before potential exposure to HPV through sexual activity; however, females who are sexually active should still be vaccinated consistent with age-based recommendations. Sexually active females who have not been infected with any of the 4 HPV vaccine types receive the full benefit of the vaccination. Vaccination is less beneficial for females who have already been infected with 1 or more of the HPV vaccine types.
- A complete series consists of 3 doses. The second dose should be administered 2 months after the first dose; the third dose should be administered 6 months after the first dose.

- HPV vaccination is not specifically recommended for females with the medical indications described in Figure 2, "Vaccines that might be indicated for adults based on medical and other indications" (see above). Because HPV vaccine is not a live-virus vaccine, it may be administered to persons with the medical indications described in Figure 2. However, the immune response and vaccine efficacy might be less for persons with the noted medical indications described in Figure 2 than in persons who do not have the medical indications described or who are immunocompetent. Health care personnel are not at increased risk because of occupational exposure and should be vaccinated consistent with age-based recommendations.

3. **Varicella vaccination**

- All adults without evidence of immunity to varicella should receive 2 doses of single-antigen varicella vaccine if not previously vaccinated or the second dose if they have received only 1 dose, unless they have a medical contraindication. Special consideration should be given to those who 1) have close contact with persons at high risk for severe disease (e.g., health care personnel and family contacts of persons with immunocompromising conditions) or 2) are at high risk for exposure or transmission (e.g., teachers; child care employees; residents and staff members of institutional settings, including correctional institutions; college students; military personnel; adolescents and adults living in households with children; nonpregnant women of childbearing age; and international travelers).
- Evidence of immunity to varicella in adults includes any of the following: 1) documentation of 2 doses of varicella vaccine at least 4 weeks apart; 2) U.S.-born before 1980 (although for health care personnel and pregnant women, birth before 1980 should not be considered evidence of immunity); 3) history of varicella based on diagnosis or verification of varicella by a health care provider (for a patient reporting a history of or presenting with an atypical case, a mild case, or both, health care providers should seek either an epidemiologic link to a typical varicella case or to a laboratory-confirmed case or evidence of laboratory confirmation, if it was performed at the time of acute disease); 4) history of herpes zoster based on health care provider diagnosis or verification of herpes zoster by a health care provider; or 5) laboratory evidence of immunity or laboratory confirmation of disease.
- Pregnant women should be assessed for evidence of varicella immunity. Women who do not have evidence of immunity should receive the first dose of varicella vaccine upon completion or termination of pregnancy and before discharge from the health care facility. The second dose should be administered 4 to 8 weeks after the first dose.

4. **Herpes zoster vaccination**

- A single dose of zoster vaccine is recommended for adults aged 60 years and older regardless of whether they report a prior episode of herpes zoster. Persons with chronic medical conditions may be vaccinated unless their condition constitutes a contraindication.

5. Measles, mumps, rubella (MMR) vaccination

- *Measles component:* Adults born before 1957 generally are considered immune to measles. Adults born during or after 1957 should receive 1 or more doses of MMR unless they have a medical contraindication, documentation of 1 or more doses, history of measles based on health care provider diagnosis, or laboratory evidence of immunity.
- A second dose of MMR is recommended for adults who 1) have been recently exposed to measles or are in an outbreak setting; 2) have been vaccinated previously with killed measles vaccine; 3) have been vaccinated with an unknown type of measles vaccine during 1963–1967; 4) are students in postsecondary educational institutions; 5) work in a health care facility; or 6) plan to travel internationally.
- *Mumps component:* Adults born before 1957 generally are considered immune to mumps. Adults born during or after 1957 should receive 1 dose of MMR unless they have a medical contraindication, history of mumps based on health care provider diagnosis, or laboratory evidence of immunity.
- A second dose of MMR is recommended for adults who 1) live in a community experiencing a mumps outbreak and are in an affected age group; 2) are students in postsecondary educational institutions; 3) work in a health care facility; or 4) plan to travel internationally. For unvaccinated health care personnel born before 1957 who do not have other evidence of mumps immunity, administering 1 dose on a routine basis should be considered and administering a second dose during an outbreak should also be strongly considered.
- *Rubella component:* 1 dose of MMR vaccine is recommended for women whose rubella vaccination history is unreliable or who lack laboratory evidence of immunity. For women of childbearing age, regardless of birth year, rubella immunity should be determined and women should be counseled regarding congenital rubella syndrome. Women who do not have evidence of immunity should receive MMR vaccine upon completion or termination of pregnancy and before discharge from the health care facility.

6. Influenza vaccination

- *Medical indications:* Chronic disorders of the cardiovascular or pulmonary systems, including asthma; chronic metabolic diseases, including diabetes mellitus, renal or hepatic dysfunction, hemoglobinopathies, or immunocompromising conditions (including immunocompromising conditions caused by medications or HIV); any condition that compromises respiratory function or the handling of respiratory secretions or that can increase the risk of aspiration (e.g., cognitive dysfunction, spinal cord injury, or seizure disorder or other neuromuscular disorder); and pregnancy during the influenza season. No data exist on the risk for severe or complicated influenza disease among persons with asplenia; however, influenza is a risk factor for secondary bacterial infections that can cause severe disease among persons with asplenia.
- *Occupational indications:* All health care personnel, including those employed by long-term care and assisted-living facilities, and caregivers of children younger than 5 years old.
- *Other indications:* Residents of nursing homes and other long-term care and assisted-living facilities; persons likely to transmit influenza

to persons at high risk (e.g., in-home household contacts and caregivers of children aged less than 5 years, persons 65 years and older, and persons of all ages with high-risk condition[s]); and anyone who would like to decrease their risk of getting influenza. Healthy, nonpregnant adults aged less than 50 years without high-risk medical conditions who are not contacts of severely immunocompromised persons in special care units can receive either intranasally administered live, attenuated influenza vaccine (FluMist) or inactivated vaccine. Other persons should receive the inactivated vaccine.

7. Pneumococcal polysaccharide (PPSV) vaccination

- *Medical indications:* Chronic lung disease (including asthma); chronic cardiovascular diseases; diabetes mellitus; chronic liver diseases, cirrhosis; chronic alcoholism, chronic renal failure, or nephrotic syndrome; functional or anatomic asplenia (e.g., sickle cell disease or splenectomy [if elective splenectomy is planned, vaccinate at least 2 weeks before surgery]); immunocompromising conditions; and cochlear implants and cerebrospinal fluid leaks. Vaccinate as close to HIV diagnosis as possible.
- *Other indications:* Residents of nursing homes or other long-term care facilities and persons who smoke cigarettes. Routine use of PPSV is not recommended for Alaska Native or American Indian persons younger than 65 years unless they have underlying medical conditions that are PPSV indications. However, public health authorities may consider recommending PPSV for Alaska Natives and American Indians 50 through 64 years of age who are living in areas in which the risk of invasive pneumococcal disease is increased.

8. Revaccination with PPSV

- One-time revaccination after 5 years for persons with chronic renal failure or nephrotic syndrome, functional or anatomic asplenia (e.g., sickle cell disease or splenectomy), and persons with immunocompromising conditions. For persons aged 65 years or older, 1-time revaccination if they were vaccinated 5 or more years previously and were aged less than 65 years at the time of primary vaccination.

9. Hepatitis A vaccination

- *Medical indications:* Persons with chronic liver disease and persons who receive clotting factor concentrates.
- *Behavioral indications:* Men who have sex with men and persons who use illegal drugs.
- *Occupational indications:* Persons working with hepatitis A virus (HAV)-infected primates or with HAV in a research laboratory setting.
- *Other indications:* Persons traveling to or working in countries that have high or intermediate endemicity of hepatitis A (a list of countries is available at <http://www.cdc.gov/travel/content/diseases.aspx>) and any person seeking protection from HAV infection.
- Single-antigen vaccine formulations should be administered in a 2-dose schedule at either 0 and 6 to 12 months (Havrix®) or 0 and 6 to 18 months (Vaqta®). If the combined hepatitis A and hepatitis B vaccine (Twinrix®) is used, administer 3 doses at 0, 1, and 6 months;

alternatively, a 4-dose schedule, administered on days 0, 7, and 21 to 30 followed by a booster dose at month 12 may be used.

10. Hepatitis B vaccination

- *Medical indications:* Persons with end-stage renal disease, including patients receiving hemodialysis; persons with HIV infection; and persons with chronic liver disease.
- *Occupational indications:* Health care personnel and public-safety workers who are exposed to blood or other potentially infectious body fluids.
- *Behavioral indications:* Sexually active persons who are not in a long-term, mutually monogamous relationship (e.g., persons with more than 1 sex partner during the previous 6 months); persons seeking evaluation or treatment for a sexually transmitted disease (STD); current or recent injection-drug users; and men who have sex with men.
- *Other indications:* Household contacts and sex partners of persons with chronic hepatitis B virus (HBV) infection; clients and staff members of institutions for persons with developmental disabilities; international travelers to countries with high or intermediate prevalence of chronic HBV infection (a list of countries is available at <http://www.cdc.gov/travel/content/diseases.aspx>); and any adult seeking protection from HBV infection.
- Hepatitis B vaccination is recommended for all adults in the following settings: STD treatment facilities, HIV testing and treatment facilities, facilities providing drug-abuse treatment and prevention services, health care settings targeting services to injection-drug users or men who have sex with men, correctional facilities, end-stage renal disease programs and facilities for chronic hemodialysis patients, and institutions and nonresidential day care facilities for persons with developmental disabilities.
- If the combined hepatitis A and hepatitis B vaccine (Twinrix®) is used, administer 3 doses at 0, 1, and 6 months; alternatively, a 4-dose schedule, administered on days 0, 7, and 21 to 30 followed by a booster dose at month 12 may be used.
- *Special formulation indications:* For adult patients receiving hemodialysis or with other immunocompromising conditions, 1 dose of 40 micrograms/mL (Recombivax HB®) administered on a 3-dose schedule or 2 doses of 20 micrograms/mL (Engerix-B®) administered simultaneously on a 4-dose schedule at 0, 1, 2, and 6 months.

11. Meningococcal vaccination

- *Medical indications:* Adults with anatomic or functional asplenia or terminal complement component deficiencies.
- *Other indications:* First-year college students living in dormitories; microbiologists routinely exposed to isolates of *Neisseria meningitidis*; military recruits; and persons who travel to or live in countries in which meningococcal disease is hyperendemic or epidemic (e.g., the "meningitis belt" of sub-Saharan Africa during the dry season [December–June]), particularly if their contact with local populations will be prolonged. Vaccination is required by the government of Saudi Arabia for all travelers to Mecca during the annual Hajj.

- Meningococcal conjugate vaccine (MCV) is preferred for adults with any of the preceding indications who are age 55 years or younger, although meningococcal polysaccharide vaccine (MPSV) is an acceptable alternative. Revaccination with MCV after 5 years might be indicated for adults previously vaccinated with MPSV who remain at increased risk for infection (e.g., persons residing in areas in which disease is epidemic).

12. **Selected conditions for which *Haemophilus influenza* type b (Hib) vaccine may be used**

- Hib vaccine generally is not recommended for persons 5 years and older. No efficacy data are available on which to base a recommendation concerning use of Hib vaccine for older children and adults. However, studies suggest good immunogenicity in patients who have sickle cell disease, leukemia, or HIV infection or who have had a splenectomy; administering 1 dose of vaccine to these patients is not contraindicated.

13. **Immunocompromising conditions**

- Inactivated vaccines generally are acceptable (e.g., pneumococcal, meningococcal, and influenza [trivalent inactivated influenza vaccine]), and live vaccines generally are avoided in persons with immune deficiencies or immunocompromising conditions. Information on specific conditions is available at www.cdc.gov/vaccines/pubs/acip-list.htm.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Effective and age-appropriate administration of vaccines to adults
- Decline in vaccine-preventable diseases among adults

POTENTIAL HARMS

Adverse reactions to vaccination

CONTRAINDICATIONS

CONTRAINDICATIONS

Refer to the "Major Recommendations" field to Figure 2 titled "Vaccines that might be indicated for adults based on medical and other indications" for contraindications to recommended vaccines.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Foreign Language Translations
Patient Resources
Personal Digital Assistant (PDA) Downloads
Pocket Guide/Reference Cards
Resources
Slide Presentation
Staff Training/Competency Material

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Advisory Committee on Immunization Practices. Recommended adult immunization schedule: United States, 2009*. Ann Intern Med 2009 Jan 6;150(1):40-4. [PubMed](#)

Centers for Disease Control and Prevention (CDC). Recommended adult immunization schedule -- United States, 2009. MMWR Recomm Rep 2009 Jan 9;57(53):Q-1-4.

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2007 Nov 20 (revised 2009 Jan 9)

GUIDELINE DEVELOPER(S)

Centers for Disease Control and Prevention - Federal Government Agency [U.S.]

SOURCE(S) OF FUNDING

United States Government

GUIDELINE COMMITTEE

Advisory Committee on Immunization Practices

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Committee Members: Dale L. Morse, MD, MS (*Chairman*), New York State Department of Health, Albany, New York; Larry K. Pickering, MD (*Executive Secretary*), Centers for Disease Control and Prevention, Atlanta, Georgia; Carol J. Baker, MD, Baylor College of Medicine, Houston, Texas; Robert L. Beck, JD, Palmyra, Virginia; Lance Chilton, MD, University of New Mexico School of Medicine, Albuquerque, New Mexico; Paul Cieslak, MD, Oregon Public Health Division, Portland, Oregon; Kristen R. Ehresmann, RN, MPH, Minnesota Department of Health, St. Paul, Minnesota; Janet Englund, MD, Children's Hospital and Regional Medical Center, Seattle, Washington; Franklyn N. Judson, MD, University of Colorado Health Science Center, Denver, Colorado; Susan M. Lett, MD, MPH, Massachusetts Department of Public Health, Jamaica Plain, Massachusetts; Michael S. Marcy, MD, Harbor-UCLA Medical Center, Torrance, California; Cody H. Meissner, MD, Tufts Medical Center, Boston, Massachusetts; Gina T. Mootrey, DO, MPH (*Lead Staff, ACIP Adult Immunization Working Group*), Centers for Disease Control and Prevention, Atlanta, Georgia; Kathleen Neuzil, MD, MPH, University of Washington, Seattle, Washington; Mark H. Sawyer, MD,

UCSD School of Medicine and Rady Children's Hospital San Diego, San Diego, California; Ciro Valent Sumaya, MD, MPHTM, Texas A&M Health Science Center, College Station, Texas; and Jonathan Temte, MD, PhD, University of Wisconsin School of Medicine and Public Health, Madison, Wisconsin.

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

To assure the integrity of the Advisory Committee on Immunization Practices (ACIP), the U.S. Department of Health and Human Services has taken steps to assure that there is technical compliance with ethics statutes and regulations regarding financial conflicts of interest. Concerns regarding the potential for the appearance of a conflict are addressed, or avoided altogether, through both pre- and postappointment considerations. Individuals with particular vaccine-related interests will not be considered for appointment to the committee. Potential nominees are screened for conflicts of interest, and if any are found, they are asked to divest or forgo certain vaccine-related activities. In addition, at the beginning of each ACIP meeting, each member is asked to declare his or her conflicts. Members with conflicts are not permitted to vote if a conflict involves the vaccine or biologic being voted upon. Members of the ACIP have disclosed the following: *Consultancies*: M.S. Marcy (Merck). *Grants received*: J. Englund (Sanofi Pasteur, Novartis, Medimmune), F.N. Judson (Merck).

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Advisory Committee on Immunization Practices. Recommended adult immunization schedule: United States, October 2007-September 2008. *Ann Intern Med* 2007 Nov 20;147(10):725-9. [1 reference]

GUIDELINE AVAILABILITY

Electronic copies: Available from the [Centers for Disease Control and Prevention \(CDC\) Web site](#) and the [Annals of Internal Medicine Web site](#).

Print copies: Available from the Centers for Disease Control and Prevention, MMWR, Atlanta, GA 30333. Additional copies can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9325; (202) 783-3238.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Poland GA, Schaffner W. Immunization guidelines for adult patients: an annual update and a challenge. *Ann Intern Med*. 2009 Jan 6;150(1):53-4. Electronic copies: Available from the [Annals of Internal Medicine Web site](#).
- Smith JC, Snider DE, Pickering LK. Immunization policy development in the United States: the role of the Advisory Committee on Immunization Practices.

- Ann Intern Med. 2009 Jan 6;150(1):45-9. Electronic copies: Available from the [Annals of Internal Medicine Web site](#).
- The Adult Immunization Schedule is available in English and Spanish in a variety of formats and as Personal Digital Assistant (PDA) download at <http://www.cdc.gov/vaccines/recs/schedules/adult-schedule.htm>.
 - Recommended Adult Immunization Schedule: United States, 2009. Available in PowerPoint format from the [Annals of Internal Medicine Web site](#).
 - A Continuing Medical Education (CME) activity is available from the [Annals of Internal Medicine Web site](#).
 - An audio interview with one of the authors of the guideline is available as a podcast from the [Annals of Internal Medicine Web site](#).
 - General information about adult vaccination is available at <http://www.cdc.gov/vaccines/default.htm>.
 - ACIP statements for specific vaccines are available at <http://www.cdc.gov/vaccines/pubs/acip-list.htm>.
 - Instructions for reporting adverse events to the Vaccine Adverse Event Reporting System are available at <http://www.vaers.hhs.gov> or by telephone (800-822-7967).

PATIENT RESOURCES

Vaccine Information Statements for individual vaccines are available in Portable Document Format (PDF) in a variety of languages from the [Centers for Disease Control and Prevention \(CDC\) Web site](#).

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC STATUS

This NGC summary was completed by ECRI Institute on February 20, 2008. This NGC summary was updated by ECRI Institute on March 6, 2009.

COPYRIGHT STATEMENT

No copyright restrictions apply.

DISCLAIMER

NGC DISCLAIMER

The National Guideline Clearinghouse™ (NGC) does not develop, produce, approve, or endorse the guidelines represented on this site.

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria which may be found at <http://www.guideline.gov/about/inclusion.aspx>.

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.

© 1998-2009 National Guideline Clearinghouse

Date Modified: 3/23/2009

